

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination that *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* are Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Echinocereus viridiflorus* var. *davisii* (Davis' green pitaya) and *Coryphantha minima* (Nellie Cory cactus), native plants of Texas, to be Endangered species. They have no present protection from any agency. A past period of commercial exploitation has caused a decline in their natural population, and they are greatly threatened by further taking. These narrow endemics are restricted to a single mineral outcrop and would be highly vulnerable to any alteration of the habitat through range management or to mining of its mineral base. This action will extend to this plant the protection provided by the Endangered Species Act of 1973, as amended.

DATE: This rulemaking becomes effective on December 7, 1979.

FOR FURTHER INFORMATION CONTACT:

Mr. John Spinks, Chief, Office of Endangered Species, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C., 20240, 703/235-2771.

SUPPLEMENTARY INFORMATION:

Background

Echinocereus viridiflorus var. *davisii* (Davis' green pitaya) and *Coryphantha minima* (Nellie Cory cactus) are found together on a single mineral formation in the Marathon Basin of northern Brewster County, Texas. These cacti are members of the suite of rare plants restricted to this mineral outcrop and as such are a valuable resource for the scientific investigation of various ecological relationships. Their range is small, as are the size of their populations: a few hundred individuals of *Echinocereus viridiflorus* var. *davisii* and a few thousand individuals of *Coryphantha minima* (this estimate is based on the best available population data). Both cacti are successfully reproducing as indicated by their relative abundance within their range and numerous young plants. The populations of both cacti appear healthy and vigorous. The main factor affecting the population levels of these cacti has been commercial collecting, which resulted in their removal from part of their range.

The Secretary of the Smithsonian Institution, in response to Section 12 of the Endangered Species Act, presented his report on plant species to Congress on January 2, 1975. This report, designated as House Document No. 94-51, contained lists of over 3,100 U.S. vascular plant taxa considered to be Endangered, Threatened, or extinct.

On July 1, 1975, the Director published a notice in the Federal Register [40 FR 27823-27924] of his acceptance of the report of the Smithsonian Institution as a petition to list these species under Section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within as well as any habitat which might be determined to be critical.

On June 16, 1976, the Service published a proposed rulemaking in the Federal Register [41 FR 24523-24572] to determine approximately 1,700 vascular plant species to be Endangered species pursuant to Section 4 of the Act. This list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the above mentioned Federal Register publication.

Echinocereus viridiflorus var. *davisii* and *Coryphantha minima* were included in both the July 1, 1975, notice of review and the June 16, 1976 proposal. A public hearing on the June 16, 1976 proposal was held on July 22, 1976, in El Segundo, California, and on July 28, 1976, in Kansas City, Missouri. Another public hearing was held on July 9, 1979, in Austin, Texas for the seven Texas cacti proposed as Endangered Species, including *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima*.

In the June 24, 1977, Federal Register, the Service published a final rulemaking (42 FR 32373-32381), codified at 50 CFR Part 17) detailing the regulations to protect Endangered and Threatened plant species. The rules establish prohibitions and a permit procedure to grant exceptions to the prohibitions under certain circumstances.

The Department has determined that this rule does not meet the criteria for significance in the Department Regulations implementing Executive Order 12044 (43 CFR Part 14) or require the preparation of a regulatory analysis.

Summary of Comments and Recommendations

In keeping with the intent of Section 4(b)(1)(C) of the Act, a summary of all comments and recommendations received are here published in the Federal Register prior to adding these species to the Lists of Endangered and Threatened Wildlife and Plants.

Hundreds of comments on the general proposal of June 16, 1976, were received from individuals and conservation organizations. Few of these comments were specific in nature, in that they did not address individual plant species. Most comments addressed the program, or the concept of Endangered and Threatened plants and their protection and regulation. These comments are summarized in the April 26, 1978, Federal Register publication which also determined 13 plant species to be Endangered or Threatened species (43 FR 17909-17916). Some of these comments addressed the general problems of cacti conservation. Additionally many comments on the cactus trade were received in response to the June 7, 1976, proposed rule (41 FR 22915) on prohibitions and permit provisions for plants under Section 9(a)(2) and 10(a) of the Act. These comments are summarized in the June 24, 1977, Federal Register final prohibitions and permit provisions. Five comments specific to *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* were received. One comment from a horticulturist working with cacti stated that *Echinocereus viridiflorus* var. *davisii* was easily grown from seed and that such specimens were healthier and therefore more salable than collected plants. He believed that such propagation was both good conservation and good business.

The editor of the Cactus and Succulent Journal wrote in response to the proposed rules for plants, stating that vegetative propagation and propagation from seed was being successfully done with both *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* and ought to be encouraged. Permits are available for the enhancement of propagation or survival of Endangered species; these permits are easily obtainable for seeds and cultivated plants. Two nurserymen wrote with similar concerns about the proposed rules, citing *Echinocereus viridiflorus* var. *davisii* as a very successfully propagated rare cactus. They wanted to see no restrictions on the sale and exchange of seeds and of plants propagated in captivity. The existing permit regulations pose minimal restrictions for these two categories of plants; they should be in fact encourage cooperative propagation efforts. Botanists have submitted information on these species since the close of the official comment period. In a letter dated February 17, 1977, Dr. Lyman Benson of Pomona College commented that *Coryphantha minima* was one of

the most important species requiring protection of those proposed for protection due to its narrow endemism and its desirability for cultivation. He stated that *Echinocereus viridiflorus* var. *davisii* was also desirable for cultivation and that both species were considerably exploited. A knowledgeable cacti horticulturist commented that these two species were critically in need of protection because of the collectors who threatened to remove all known plants from the wild. The Governor of Texas was notified of this proposed action. The Governor submitted no comments on the proposed action, nor did the State Conservation Agency. The Texas Parks and Wildlife Department had previously commented that *Coryphantha minima* was one of the rarest cacti of Texas.

On July 9, 1979, a second public hearing was held in Austin, Texas, and the comment period was officially reopened (July 2 through July 23, 1979). The Governor of Texas was again notified of the proposal to list *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* as Endangered species. The Governor submitted no comments on the proposed action.

One written comment specific to these two cacti was received in the July 1979 comment period. The El Paso Cactus and Rock Club favored listing these species as Endangered.

At the July 9, 1979, public hearing in Austin, Texas, Del Weniger, chairman of the Biology Department at Our Lady of the Lake University in San Antonio, commented on the natural history and distribution of these two species. He described *Echinocereus viridiflorus* var. *davisii* as a very rare cactus which was protected from collectors by its inconspicuousness. He described *Coryphantha minima* as an even rarer cactus restricted to one ranch: "here is a plant whose existence depends on one landowner because it exists only in that one landowner's property." He recommended that both species be final-listed as Endangered because of collecting threats and possible habitat destruction from range improvement programs.

Conclusion

After a thorough review and consideration of all the information available, the Director has determined that *Echinocereus viridiflorus* Englem var. *davisii* (Houghton) L. Benson (Davis' green pitaya; synonym: *Echinocereus davisii*) and *Coryphantha minima* Baird (Nellie, Cory cactus; synonyms: *Coryphantha Nellieae*, *Mammillaria Nellieae*, *Escobaria*

Nellieae) are in danger of becoming extinct within the foreseeable future throughout all or a significant portion of their range due to one of more of the factors described in Section 4(a) of the Act.

These factors and their application to *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* are as follows:

(1) *The present or threatened destruction, modification, or curtailment of its habitat or range.* Historically, the main range of these species was on two ranches in northern Brewster County, Texas. Typical ranch operations—grazing, etc.—are carried on here. This has not altered the habitat to date, and the present ranching activity does not seem to pose any threat to the habitat or to these species. *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* occur on only one mineral base. This is the only known deposit of that mineral in Texas. While it is emphasized that there are no known plans for mining this mineral here, it is mined in Arkansas. Any move to such mining would immediately affect these plants.

(2) *Overutilization for commercial, sporting, scientific, or educational purposes.* These species are greatly desired show plants and collectors' items. Entire plants are collected by cactus dealers and amateur growers. Historically, the main range for *Echinocereus viridiflorus* var. *davisii* and *Coryphantha minima* was on two large adjacent ranches (*E. viridiflorus* var. *davisii* also extended onto a third ranch). In the sixties, one of the two ranch owners allowed cacti collectors free access to his lands; cacti for the trade were taken over a number of years from this ranch. The populations of both species on that ranch have been completely extirpated. The closed ranch contains all the remaining populations of *Coryphantha minima* and the greater part of *Echinocereus viridiflorus* var. *davisii*. These plants are not protected in any way, except by the fact that the few botanists knowing their whereabouts avoid giving out the precise locations. Once this information is generally available, these cacti would be highly vulnerable to taking.

(3) *Disease or predation* (including grazing). Limited grazing occurs on the ranchlands where these cacti are found. No adverse effects from the present level of grazing have been noted.

(4) *The inadequacy of existing regulatory mechanisms.* The State of Texas provides no protection for these species.

All native cacti are on Appendix II of the Convention on International Trade

in Endangered Species of Wild Fauna and Flora. However, this Convention only regulates export of the cactus and, therefore, does not regulate interstate or intrastate trade in the cactus or habitat destruction. No other Federal protective laws currently apply specifically to these species. The Endangered Species Act will now offer additional protection for these cacti.

(5) *Other natural or manmade factors affecting its continued existence.* Restriction to a very specialized and localized mineral outcrop, with a low total population level consisting of small and scattered populations with a resultant restricted gene pool are factors which tend to intensify the adverse effects of threats to these plants and their habitat.

Effect of the Rulemaking

Section 7(a) of the Act as amended in 1978 provides:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act. Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") does not jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section.

Provisions for Interagency Cooperation were published on January 4, 1978, in the *Federal Register* (43 FR 870-876) and codified at 50 CFR Part 402. These regulations are intended to assist Federal agencies in complying with Section 7(a) of the Act. This rulemaking requires Federal agencies to satisfy these statutory and regulatory obligations with respect to these species.

Endangered species regulations in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all Endangered species. The regulations which pertain to Endangered plant species, are found at §§ 17.61-17.63 (42 FR 32378-32381).

Section 9(a)(2) of the Act, as implemented by Section 17.61 would

apply. With respect to any species or plant listed as Endangered, it is, in general, illegal for any person subject to the jurisdiction of the United States to import or export such species; deliver, receive, carry, transport, or ship such species in interstate or foreign commerce by any means and in the course of a commercial activity; or sell or offer such species for sale in interstate or foreign commerce. Certain exceptions apply to agents of the Service and State conservation agencies.

Section 10 of the Act and regulations published in the *Federal Register* of June 24, 1977 (42 FR 32373-32381, 50 CFR Part 17), also provide for the issuance of permits under certain circumstances to carry out otherwise prohibited activities involving Endangered plants.

Effect Internationally

In addition to the protection provided by the Act, all native cacti are on Appendix II of the Convention of International Trade in Endangered Species of Wild Fauna and Flora which requires a permit for export of this plant. The Service will review whether these taxa should be considered under the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere or other appropriate international agreements.

National Environmental Policy Act

A final Environmental Assessment has been prepared and is on file in the Service's Washington Office of Endangered Species. The assessment is the basis for a decision that this determination is not a major Federal action which significantly affects the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

Endangered Species Act Amendments of 1978

The Endangered Species Act Amendments of 1978 added the following provision to subsection 4(a)(1) of the Endangered Species Act of 1973:

At the time any such regulation (to determine a species to be an Endangered or Threatened species) is proposed, the Secretary shall by regulation, to the maximum extent prudent, specify any habitat of such species which is then considered to be Critical Habitat.

Echinocereus viridiflorus var. *davisii* and *Coryphantha minima* are threatened by taking and the taking of plants is not prohibited by the Endangered Species Act of 1973. Publication of Critical Habitat maps would make these species more vulnerable to taking and therefore it would not be prudent to determine Critical Habitat.

Echinocereus viridiflorus var. *davisii* and *Coryphantha minima* were proposed for listing as Endangered plants on June 16, 1978. Since it has been determined to be imprudent to designate Critical Habitat for these species at this time, and all listing requirements of the Act have been satisfied, the Service now proceeds with the final rulemaking to determine these species to be Endangered under the authority contained in the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

The primary author of this rule is Ms. Rosemary Carey, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240, (703/235-1975).

Regulation Promulgation

Accordingly, § 17.12 of Part 17 of Chapter I of Title 50 of the U.S. Code of Federal Regulations is amended as follows:

1. Section 17.12 is amended by adding, in alphabetical order by family, genus, species, the following plants:

§ 17.12 Endangered and threatened plants.

Species		Range		Status	When listed	Special rules
Scientific name	Common name	Known distribution	Portion endangered			
Cactaceae—Cactus family:						
<i>Echinocereus viridiflorus</i> var. <i>davisii</i> .	Davis' green pitaya..	U.S.A. (Tex.)	Entire	E	82	NA
<i>Coryphantha minima</i>	Nellie Cory cactus	U.S.A. (Tex.)	Entire	E	82	NA

Dated: November 1, 1979.

Robert S. Cook,
Acting Director, Fish and Wildlife Service.

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